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The Rare-Earth Midstream

Why Refining, Not Mining, Sets Supply

91%
CHINA RARE-EARTH REFINING SHARE

6%
NON-CHINA FINISHED-MAGNET SHARE

5-7 YRS
MINE-TO-OXIDE DEVELOPMENT LAG

9-10%
2035 NORTH AMERICA REFINING SHARE

EXECUTIVE DASHBOARD

China's rare-earth advantage is usually measured at the mine. The 2026 data says that is the wrong place to look, and the wrong place to expect the current wave of Western investment to change the picture quickly.

THESIS

China's leverage over rare earths sits overwhelmingly in the midstream: separation, refining, and magnet manufacture, not in mining, where its share is comparatively moderate and falling. A genuinely well-financed non-Chinese buildout is now underway at four flagship projects across three countries, and 2026 is the year capital stopped being the binding constraint. It is not the year the structural gap closed, or is projected to close this decade: independent projections converge on a non-Chinese refining share still in the single digits to low double digits through 2035. For an operator or investor, the decision-relevant measure of exposure is **contracted, qualified midstream throughput and its delivery date**, not mine-offtake diversity and not capital announcements.

KEY STATISTICS

91%
China rare-earth refining share, 2026[1]

94%
China magnet-production share[1]

40%→6%
Non-China share: mining vs magnets[1]

9-10%
2035 projected North America refining share[17,18]

<20%
Dysprosium/terbium demand met outside China[2]

~30%
2035 projected magnet-grade supply shortfall[2]

5-7 yrs
Mine-decision to qualified-oxide lag[9,10]

12-24 mo
Qualification cycle to binding contract[9,10]

Scope & method. Open-source intelligence only, verified against allowlisted Tier 1 to 4 sources: government loan and regulatory disclosure, company and investor disclosure, and specialist industry and trade press for project-level detail not yet covered by Tier 1 to 2 sources. Figures that could not be corroborated across at least two sources were excluded rather than estimated. This brief extends AEIG's prior assessment of the export-control regime (PMR-2026-0526-GLOBAL-001, PMR-2026-0603-GLBL-005) into the buildout and capital-allocation question. Window: 2023 to mid-2026, with forward projections to 2035 as reported by cited sources. Timeliness: DURABLE.

KEY JUDGMENTS

Six judgments anchor this assessment. Each is tied to the cited evidence in the sections that follow and carries an explicit confidence level.

1 High — The binding constraint is separation, refining, and magnet capacity, not mine output. China holds about 60 percent of mining but 91 percent of refining and 94 percent of magnet production; non-Chinese share collapses from 40 percent at the mine to 6 percent at the magnet.[1]

2 High — A real, independently verifiable non-Chinese buildout is underway at four flagship projects, Mountain Pass, White Mesa, Kuantan, and Eneabba, each targeting heavy-rare-earth separation specifically and each backed by disclosed government or company capital.[6,7,9,10,11,12]

3 Moderate — 2026 marks the point at which financing stopped being the binding constraint on the non-Chinese buildout: federal and allied-government commitments disclosed in the first half of 2026 alone exceed the prior several years combined.[14,15,16]

4 High — Financing does not compress the physical timeline. Separation capacity runs five to seven years from a mine-development decision to qualified refined-oxide output, and magnet-grade qualification adds a further 12 to 24 months once oxide is available.[9,10]

5 Moderate

Capital cost is a moving target, not a fixed one: Eneabba's project cost has already risen 42 to 50 percent above its original estimate, a pattern that should be priced into every subsequent non-Chinese midstream project still in early development.[9]

6 Moderate

For an operator or investor, mine-offtake diversification is the wrong primary metric for rare-earth exposure. The decision-relevant measure is contracted, qualified midstream throughput and its delivery date; independent 2035 projections show the structural gap persisting on that measure regardless of how the mining picture evolves.[1,2,17,18]

SECTION 01 · STRUCTURE

The Chain, Not the Mine

Concentration rises at every step downstream of the mine, and the step that actually gates supply is the one furthest from where most diversification spending goes.

China's position in rare earths is usually described as a single number, its share of mining, and that framing understates the exposure by a wide margin. As of 2026, China accounts for roughly 60 percent of magnet-grade rare-earth mining, but approximately 91 percent of global separation and refining and about 94 percent of finished permanent-magnet production.[1] The concentration does not hold steady down the chain. It compounds. AEIG's prior assessment of the export-control regime established that the binding chokepoint sits in the midstream, not the mine;[20] this brief extends that finding into the buildout itself, the specific projects, capital, and timelines meant to close the gap, and asks whether they actually do.

The clearest single number for a decision-maker is the collapse between the mine and the magnet. Non-Chinese producers account for roughly 40 percent of mined rare-earth output today, a share that diversification programs of the last five years have genuinely moved. But that same non-Chinese share falls to approximately 6 percent by the time the material reaches a finished permanent magnet.[1] A company that has diversified its ore contracts has addressed a small fraction of its real exposure. The other 34 points of the gap sit in separation, oxide refining, alloying, and magnet manufacture, the steps a mining relationship does not touch.

ASSESSMENT · HIGH CONFIDENCE

The decision-relevant exposure metric is midstream throughput, not mine count or ore-offtake diversity. A firm or portfolio scored only on mining-source diversification is being scored on the 40 percent of the chain that is least concentrated, while the 91 to 94 percent concentration that actually governs delivery sits unmeasured.

Rationale: *S&P Global's mining-to-magnet share breakdown shows the concentration compounding at each downstream step rather than holding constant.*[1]

SECTION 02 · BUILDOUT

The Non-Chinese Pipeline, Project by Project

Four projects carry most of the non-Chinese heavy rare-earth buildout. All four are real, funded, and behind where headlines suggest.

Walk the pipeline project by project. Mountain Pass, California: MP Materials is commissioning a heavy rare-earth separation circuit in mid-2026, its first, with nameplate capacity of roughly 200 metric tons a year of dysprosium and terbium oxide and the ability to process about 3,000 metric tons of feedstock; the company has stockpiled more than 200 metric tons of heavy-rare-earth-bearing concentrate to feed it and holds a $150 million Department of Defense loan to expand the circuit.[6,7] White Mesa Mill, Utah: Energy Fuels is targeting commercial-scale heavy rare-earth separation, dysprosium, terbium, and samarium, as early as the fourth quarter of 2026, at a planned scale of up to 48 metric tons of dysprosium oxide and 14 metric tons of terbium oxide a year.[5,18]

Kuantan, Malaysia: Lynas already runs the largest heavy-rare-earth separation plant outside China at its Lynas Advanced Materials Plant, and in early 2026 secured a preliminary $96 million supply agreement with the US Department of Defense; it is now engineering a full heavy-rare-earth facility with feedstock capacity up to 5,000 metric tons a year, targeting a complete separation suite, samarium, gadolinium, dysprosium, terbium, yttrium, and lutetium, by late 2026.[11,12,13] Eneabba, Western Australia: Iluka Resources' refinery is the most capital-intensive of the four. The projected cost has risen from roughly A$1.2 billion to a range of A$1.7 to 1.8 billion, an increase of 42 to 50 percent, backed by a AU$1.25 billion Australian government loan. Construction passed 50 percent complete in June 2026, with commissioning targeted for 2027.[9,10]

ASSESSMENT · HIGH CONFIDENCE

The buildout is not vaporware. Four separately financed, independently verifiable projects are under active construction or commissioning across three countries, each targeting the specific heavy-rare-earth separation step that is the true chokepoint. That is a materially different picture from 2023.

Rationale: *Company disclosures, government loan documentation, and construction-progress reporting are convergent across all four projects.*[6,7,9,10,11,12]

SECTION 03 · CAPITAL

Financing Is No Longer the Binding Constraint

2026 is the year non-Chinese midstream capital stopped being scarce. It is not the year the gap closed.

Capital committed to non-Chinese rare-earth midstream capacity accelerated sharply in the first half of 2026. USA Rare Earth secured a letter of intent for access to $1.6 billion in federal funding in January 2026, $277 million in direct funding and a $1.3 billion senior secured loan under the CHIPS program, and raised a further $1.5 billion in private capital in the same window.[14] In June 2026 the Pentagon offered a conditional $500 million loan to a US rare-earth processing company.[15] The Department of Energy has separately opened a $134 million funding opportunity for rare-earth supply-chain projects and has already made a further, smaller award to USA Rare Earth under its Critical Materials Innovation program.[16] This sits alongside the earlier, already-documented MP Materials arrangement, a Defense Department price-floor and equity commitment for NdPr oxide.[20]

The G7 has set its own target, that no single country should supply more than 60 percent of member rare-earth and magnet imports by 2030, tightening toward 50 percent thereafter.[17] The direction of travel on financing is now unambiguous. What financing does not do is compress a construction and qualification timeline that runs five to seven years from a mine-development decision to qualified refined-oxide output, with a further 12 to 24 months before a magnet-grade supply relationship converts to a binding, qualified contract.[9,10] Capital can be committed in a quarter. A separation train cannot be commissioned in one.

ASSESSMENT · MODERATE CONFIDENCE

Financing has moved from the binding constraint to a necessary but no longer sufficient condition. The realistic planning constraint for the next three years is construction and qualification lead time, not capital availability.

Rationale: *The scale and pace of 2026 federal commitments (USA Rare Earth, Pentagon, DOE) is well documented, but every disclosed project timeline still runs on a multi-year physical and qualification clock that financing does not shorten.*[14,15,16]

SECTION 04 · GAP

Why the Gap Persists Anyway

Run the buildout forward on its own announced schedule, and the structural share barely moves this decade.

Extend the four flagship projects to their own announced completion dates and the aggregate picture is still modest. Industry projections put North America's share of critical rare-earth refining capacity at only 9 to 10 percent by 2035, even with the current pipeline fully operational.[1,17,18] McKinsey's own modelling is comparably cautious: producers outside China are projected to meet less than a fifth of global dysprosium and terbium demand by 2035, and the firm projects a shortfall of up to 30 percent in magnet-grade rare-earth supply globally by that date absent a materially faster buildout or a sharp expansion of Chinese output.[2] "Meaningful diversification will take longer than many anticipate," is how McKinsey's Michel Van Hoey put it in May 2026, a judgment this brief's project-by-project review corroborates rather than contradicts.[2]

A University of Maribor study, reviewed alongside the buildout data, attributes the persistence of the gap to four compounding constraints beyond financing: the midstream bottleneck itself, investment uncertainty over multi-year build cycles, ecosystem lock-in around China's existing supplier and technician base, and geopolitical constraints on technology transfer, including China's own December 2023 ban on exporting rare-earth separation and magnet-manufacturing technology, which raises the cost and slows the timeline of every non-Chinese separation project by forcing independent process development.[19,20] None of the four constraints responds primarily to capital.

ASSESSMENT · MODERATE CONFIDENCE

The gap is structural, not a financing gap in disguise, and will not close on a 2026 to 2028 horizon regardless of how much additional capital is announced in that window.

Rationale: *Convergent projections from McKinsey, industry capacity trackers, and the G7's own 2030/2035 target language all show the same order-of-magnitude shortfall persisting through the current decade even under an accelerated-buildout assumption.*[1,2,17]

SECTION 05 · DECISION

The Capital Allocation Question

The practical question for an operator or investor is not whether the chokepoint will move. It will not, on any near-term horizon. The question is what to actually track.

For a company or investor assessing rare-earth exposure, mine-offtake diversification is the easiest data point to obtain and the least informative one. It answers a question, geographic and counterparty diversity of ore supply, that the last five years of policy and capital have already substantially addressed for many buyers, while leaving the 91-to-94-percent-concentrated midstream untouched. The more decision-relevant questions are narrower and harder to answer from a press release: does a given supplier or portfolio company hold contracted, qualified midstream throughput, separation capacity, oxide refining, alloying, magnet manufacture, and on whose balance sheet does the qualification risk sit.

A capital commitment to a project under construction is not the same claim as qualified, on-spec output; the gap between the two is the five-to-seven-year build lag and the further qualification cycle documented above.[6,7,9,10] Firms that pre-qualify alternative refined inputs or magnet supply before a control event or a supply shock preserve real optionality; those that treat a funding announcement or a groundbreaking as risk already retired do not.

ASSESSMENT · HIGH CONFIDENCE

Score rare-earth exposure on contracted, qualified midstream throughput and its delivery date, not mine-offtake diversity or capital announcements. The four flagship non-Chinese projects are real and de-risk the 2027-to-2030 window for buyers who secure offtake now; they do not de-risk buyers who wait for capacity to simply exist.

Rationale: *The mine-to-magnet concentration data, the project-by-project construction status, and the qualification-timeline evidence are all internally consistent on this point.*[1,6,7,9,10,14]

SECTION 06 · OUTLOOK

Three Scenarios, 18-Month Horizon

Construction confidence reflects analytical quality, not probability. Each scenario carries a triggering signal for the specific question this brief raises: does contracted, qualified midstream throughput actually arrive on the announced schedule.

Baseline · On-Schedule Buildout

CONSTRUCTION CONFIDENCE: HIGH · VELOCITY: GRADUAL

The four flagship projects commission within several quarters of their announced dates. Mountain Pass HREE and White Mesa reach commercial heavy-rare-earth output in 2026; Eneabba commissions in 2027; Lynas completes its full separation suite by late 2026. Non-Chinese refining share rises from the current low single digits toward the high single digits by 2028, still far short of the G7's 2030 target and consistent with the 9-to-10-percent 2035 industry projection. China retains the large majority of global throughput throughout the window.

SIGNAL TO WATCH: ON-SCHEDULE COMMISSIONING ANNOUNCEMENTS AT MOUNTAIN PASS AND ENEABBA THROUGH 2027; ABSENCE OF FURTHER CAPITAL-COST REVISIONS BEYOND ENEABBA'S.

Deterioration · Schedule and Cost Slip Further

CONSTRUCTION CONFIDENCE: MODERATE · VELOCITY: RAPID TO GRADUAL

One or more flagship projects follows Eneabba's pattern, a 42-to-50-percent cost revision, and either re-prices again or slips its commissioning date by a year or more. China tightens the technology-export restriction on separation and magnet-manufacturing equipment first imposed in December 2023, further raising the cost and timeline of any non-Chinese project that has not already secured its process technology.[20] The realistic 2035 non-Chinese refining share falls toward the low end of, or below, current projections.

SIGNAL TO WATCH: A SECOND MAJOR COST OR SCHEDULE REVISION AT MOUNTAIN PASS, WHITE MESA, ENEABBA, OR LYNAS; A NEW CHINESE EXPORT-CONTROL ACTION TARGETING SEPARATION OR MAGNET-MANUFACTURING TECHNOLOGY OR EQUIPMENT DESTINED FOR NON-CHINESE BUYERS.

Acceleration · Offtake Pulls the Buildout Forward

CONSTRUCTION CONFIDENCE: LOW TO MODERATE · VELOCITY: STRUCTURAL

Defense primes and automakers begin pre-qualifying non-Chinese magnet supply chains before facilities reach full commercial output, following the model of the Pentagon's Lynas and MP Materials agreements, compressing the effective qualification window. A second price-floor or offtake-guarantee deal on the MP Materials model reaches a different producer. Government financing extends to one or two additional projects beyond the current four. The non-Chinese refining share moves measurably above current 2035 projections, though China's absolute lead in total throughput persists.

SIGNAL TO WATCH: A NEW OFFTAKE-GUARANTEE OR PRICE-FLOOR AGREEMENT BETWEEN A WESTERN GOVERNMENT OR OEM AND A NON-CHINESE PRODUCER OTHER THAN MP MATERIALS OR LYNAS; AN AUTOMAKER OR DEFENSE PRIME PUBLICLY PRE-QUALIFYING A NON-CHINESE MAGNET SUPPLY CHAIN AHEAD OF FACILITY COMPLETION.

ASSESSMENT · HIGH CONFIDENCE

Across all three scenarios, the non-Chinese midstream does not displace China's lead within the 2026-to-2030 window; only Deterioration meaningfully worsens the buyer's position, and none closes the gap outright. The planning question is not which scenario arrives, but which specific, qualified midstream throughput a firm can contract for now, and on what delivery date.

Rationale: *The mine-to-magnet concentration data, the four-project construction survey, and the convergent 2035 capacity projections from McKinsey, the G7, and independent industry trackers are mutually consistent on this conclusion.*[1,2,17,18]

SOURCE REGISTRY

1. S&P Global, "Rare Earth Supply Bottlenecks Set to Persist in 2026," 2026-01-27.
2. McKinsey & Company (reported by Fortune), "America's Manufacturing Achilles' Heel: McKinsey's Warning on Rare Earths Grows Louder," 2026-05-26.
3. Bloomberg, "Trump-Xi Summit: Rare Earth Tensions Threaten $1.2 Trillion US Industry," 2026-05.
4. International Energy Agency, "Global Critical Minerals Outlook 2025," 2025-05.
5. CSIS, "Developing Rare Earth Processing Hubs: An Analytical Approach," 2026.
6. Sahm Capital, "MP Materials Sets Stage For Heavy Rare Earth Breakthrough In 2026," 2025-11-07.
7. Discovery Alert, "MP Materials Heavy Rare Earth Production: US Supply Chain," 2025.
8. Resource Recycling, "MP Materials Breaks Ground on Rare Earth Magnet Campus in North Texas," 2026-02-27.
9. Discovery Alert, "Australia's $1.65B Iluka Rare Earths Refinery Loan Explained," 2026-06.
10. Iluka Resources, "Rare Earth Mines, Magnets and Motors (investor presentation)," 2025-2026.
11. Mining Technology, "Lynas to Build New HRE Separation Facility in Malaysia," 2026.

12. Rare Earth Exchanges, "Lynas Doubles Down in Malaysia: Heavy Rare Earth Expansion Marks Strategic Inflection Point," 2026.
13. New Straits Times, "Lynas Plans Rare Earth Expansion in Malaysia to Rival China," 2026-04.
14. Bloomberg, "USA Rare Earth Lines Up $1.6 Billion in US Government Funding," 2026-01-26.
15. Washington Times, "Rare Earth Minerals Race: Pentagon to Invest $500 Million in American Rare Earth Processing Company," 2026-06-17.
16. US Department of Energy, "Energy Department Announces $134 Million in Funding to Strengthen Rare Earth Element Supply Chains," 2026.
17. MINING.COM, "G7 Aims to See China Supply No More Than 60% of Rare Earths," 2026.
18. Rare Earth Mining, "Top 10 Rare Earth Refiners Ex China in 2026," 2026.
19. Rare Earth Exchanges, "Can Markets Alone Break China's Rare Earth Grip? A New Study Says the Odds Are Long (University of Maribor study)," 2026.
20. Aegean Intelligence Group, "Critical Minerals Under Pressure: China's Export Controls and the Race for Alternative Supply, PMR-2026-0526-GLOBAL-001," 2026-05-26.
21. Aegean Intelligence Group, "The Critical Mineral Export Control Stack, PMR-2026-0603-GLBL-005," 2026-06-03.

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Publishable Market Research

Timeliness: DURABLE. This brief carries a structural, multi-year shelf life. AEIG will issue an Update Addendum on a discrete supersession event: a flagship-project (Mountain Pass, White Mesa, Kuantan, Eneabba) commissioning, material slippage, or re-pricing beyond what is documented here, or a new Chinese export-control action reaching separation or magnet-manufacturing technology.

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